

ABSTRACT

In the present invention, a logic circuit is provided therein with a current supply control circuit for controlling the amount of current supplied to a differential circuit. This current supply control circuit comprises a bypass path for bypassing the current around the differential circuit, a switching transistor interposed in the bypass path for opening/closing the bypass path in accordance with the signal level of a clock signal applied thereto from the outside, and a current amount control transistor for controlling the amount of current supplied to the differential circuit. The current amount control transistor adjusts the amount of current in accordance with the signal level of the clock signal. The current amount control transistor is configured to ensure a sufficient amount of current when current flows into the differential circuit in response to the clock signal, and to sufficiently reduce the amount of current that flows into the bypass circuit, thus reducing the amount of current leaking to the differential circuit when current flows into the bypass circuit.